ABSTRACT

GLASS PANEL WITH BARRIER COATING AND RELATED METHODS

[0050] An index-matching coating is applied directly to a low-emissivity ("lowE") thin-film coating. Nodules growing from a site in the lowE coating are removed to avoid propagation of defects through the layers of the index-matching coating. A tempering step in an oxygen-containing atmosphere produces compressive stress in the lowE coating and hardens the coating. The compressive stress facilitates removal of the nodules and the hardening allows mechanical cleaning of the lowE coating prior to the index-matching coating, further removing nodules. Magnesium-fluoride is used as the final layer of the index-matching coating in one embodiment to improve abrasion resistance. The resulting glass panel may be used as a display panel in a plasma display or an organic light-emitting diode display, for example.

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